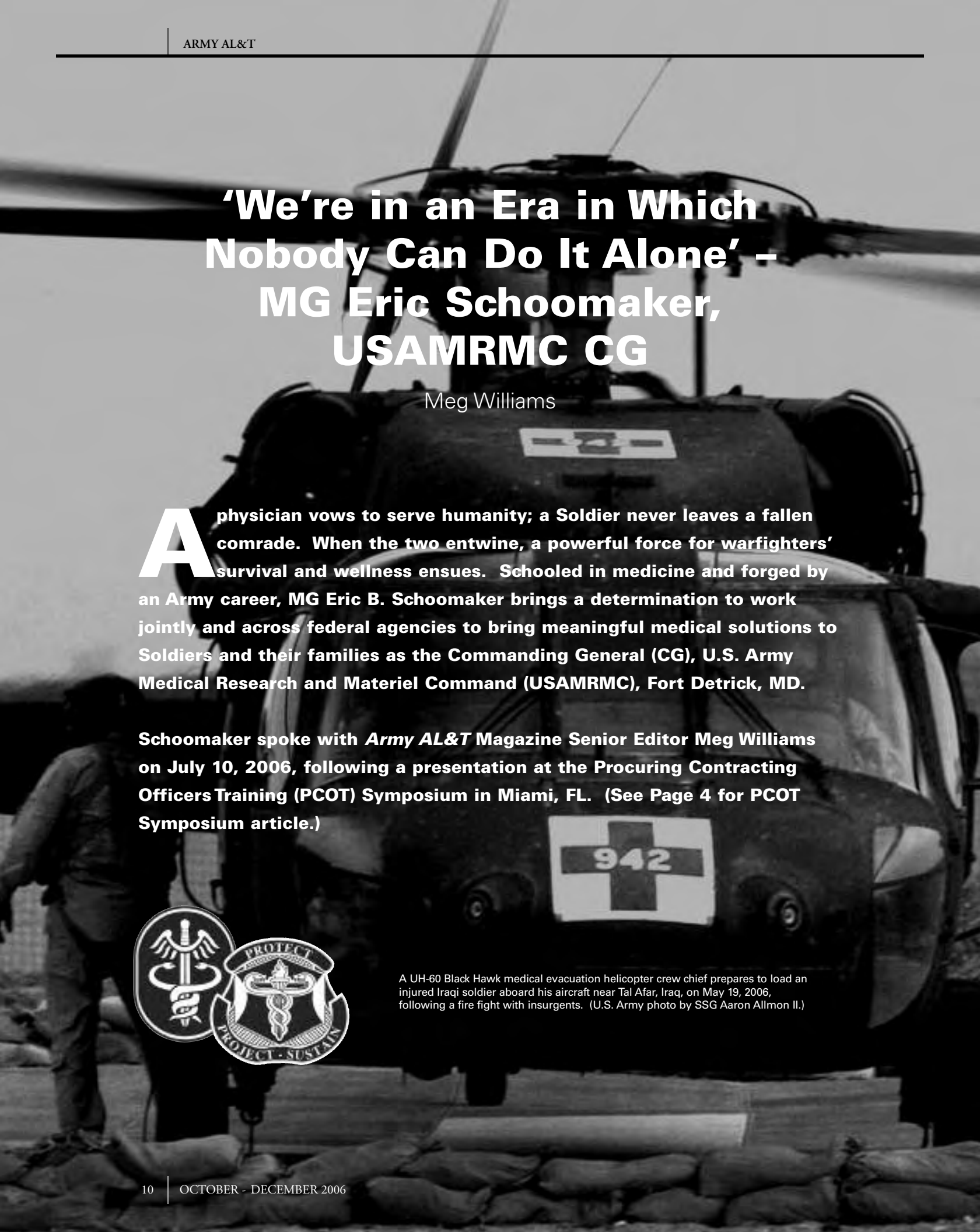
‘We’re in an Era in Which Nobody Can Do It Alone’ – MG Eric Schoomaker, USAMRMC CG

Meg Williams

A physician vows to serve humanity; a Soldier never leaves a fallen comrade. When the two entwine, a powerful force for warfighters’ survival and wellness ensues. Schooled in medicine and forged by an Army career, MG Eric B. Schoomaker brings a determination to work jointly and across federal agencies to bring meaningful medical solutions to Soldiers and their families as the Commanding General (CG), U.S. Army Medical Research and Materiel Command (USAMRMC), Fort Detrick, MD.

Schoomaker spoke with *Army AL&T* Magazine Senior Editor Meg Williams on July 10, 2006, following a presentation at the Procuring Contracting Officers Training (PCOT) Symposium in Miami, FL. (See Page 4 for PCOT Symposium article.)



A UH-60 Black Hawk medical evacuation helicopter crew chief prepares to load an injured Iraqi soldier aboard his aircraft near Tal Afar, Iraq, on May 19, 2006, following a fire fight with insurgents. (U.S. Army photo by SSG Aaron Allmon II.)

Getting Healthcare Services and Products to Soldiers

Schoomaker's command falls under the U.S. Army Medical Command (MEDCOM), one of the Army's 11 Direct Reporting Units. MEDCOM CG LTG Kevin C. Kiley, M.D., who is also the Army Surgeon General, leads MEDCOM, which is made up of approximately 50,000 officers, enlisted and civilian members who manage healthcare, medical facilities and medical research worldwide.

"Although USAMRMC contains 'Army' in its title, it is increasingly the site of Joint forces medical research, electronic medical records, health services and medical materiel procurement," Schoomaker explained. On the medical logistics side of the command, USAMRMC works jointly with the Navy and Air Force to shape the future healthcare logistics support in the military healthcare system. All services contribute requirement definitions with the Defense Logistics Agency's (DLA's) Defense Supply Center at Philadelphia (DSCP) for the bulk of medical materiel sent to all warfighting combatant commanders, especially the U.S. European Command and U.S. Central Command (CENTCOM).

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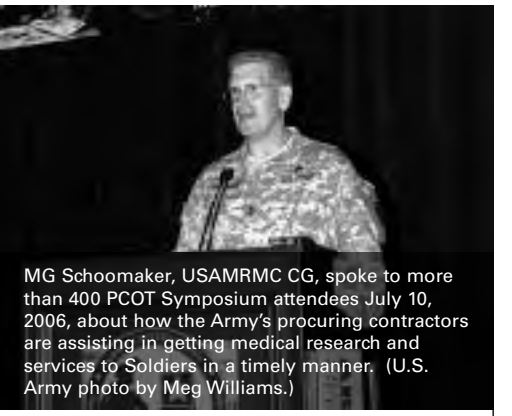
There are two acquisition activities within MEDCOM. The first being the Health Care Acquisition Activity (HCAA) headed by the Commander/Principal Assistant Responsible for Contracting (PARC) COL Earle Smith II. HCAA is collocated with MEDCOM Headquarters at Fort Sam Houston, San Antonio, TX, and delivers healthcare — mostly provider services — to patient facilities. The second is the U.S. Army Medical Research Acquisition Activity (USAMRAA), collocated with USAMRMC at Fort Detrick. Directed by Paul G. Michaels, Director/PARC, USAMRAA is in charge of contracting for medical research and acquiring products and devices that are required for care of combat Soldiers.

About 150 contracting professionals work at USAMRAA, which provides contracting support to USAMRMC and to the TriCare Management Agency, Department of Homeland Security (DHS) and the Department of Health and Human Services. USAMRAA's management structure is organized by customer-based teams to provide support from acquisition planning through contract closeout.

"USAMRMC is a Life Cycle Management Command, from basic science and concept to delivery of the materiel to Soldiers," Schoomaker said. "We are responsible for an enormous number of products and for the expertise to deliver services to Soldiers daily. Smith's activity contracts for public healthcare services at more than $1 billion a year and Michaels' activity contracts about $1.6 billion annually on the research side."

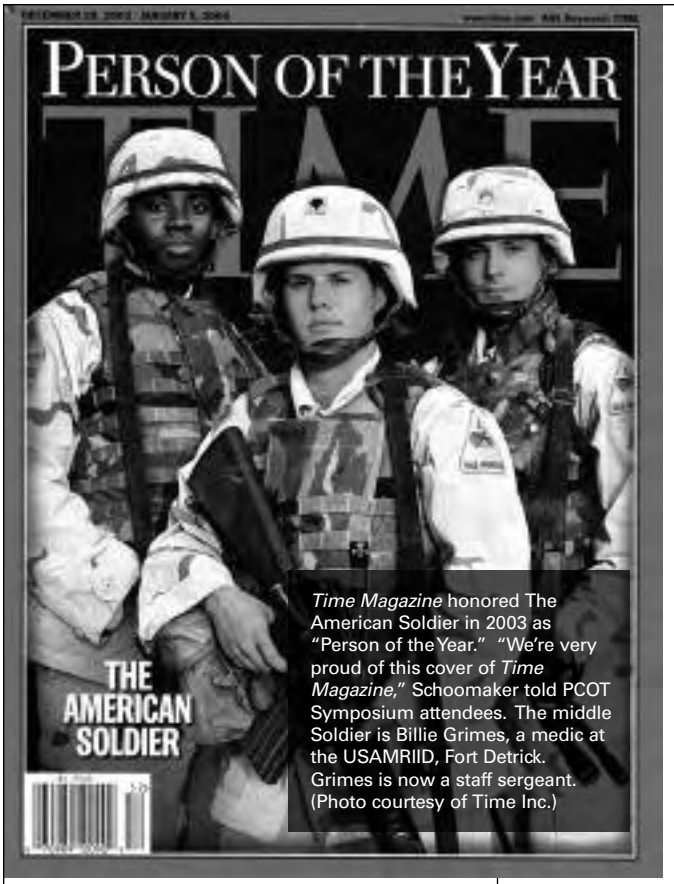
USAMRMC is in charge of six Army CONUS laboratories, three OCONUS laboratories, five nonlaboratory facilities and six medical logistics operations throughout the world. Its logistics operations are centered around the U.S. Army Medical Materiel Agency (USAMMA), Fort Detrick, and the U.S. Army Medical Materiel Central Europe (USAMMCE), Pirmasens, Germany. USAMMCE provides medical logistics support to more than 500 deployed customers within CENTCOM using prime vendor contracts.



MG Schoomaker, USAMRMC CG, spoke to more than 400 PCOT Symposium attendees July 10, 2006, about how the Army's procuring contractors are assisting in getting medical research and services to Soldiers in a timely manner. (U.S. Army photo by Meg Williams.)

Prime vendor contracting, explained Schoomaker, has made it much easier for USAMMA and USAMMCE to move products to the battlefield. A prime vendor contract is a large contract held by the DSCP that manages thousands of devices, drugs and medical materiel from the factory to foxhole, ship or flightline directly to Soldiers. Prime vendors are experts at managing large inventories of commercially available items sold to civilian healthcare facilities and USAMRMC leverages that capability versus standing up its own capability.

USAMRAA fills the gap for deployed medical units when the prime vendor system does not have or cannot get items to the units on time. Recent acquisitions have included pain management pumps, suction apparatuses and rescue devices. Indefinite delivery indefinite quantity contracts have also been used to move medical equipment into theater. When repair parts are



Time Magazine honored The American Soldier in 2003 as "Person of the Year." "We're very proud of this cover of *Time Magazine*," Schoomaker told PCOT Symposium attendees. The middle Soldier is Billie Grimes, a medic at the USAMRIID, Fort Detrick. Grimes is now a staff sergeant. (Photo courtesy of Time Inc.)

needed for medical equipment, USAMMA works with USAMMCE and DSCP to get them. "This is critical because sustaining medical equipment ensures it operates correctly in a harsh environment," Schoomaker said.

Infectious Disease and Vaccine Development

USAMRMC protects Soldiers against invisible threats — whether mental health threats, viruses or bacteria. A global command, USAMRMC has laboratories in Nairobi, Kenya, that are studying vaccines for malaria, the number one killer of human beings worldwide and a major problem for deployed U.S. Forces. "Malaria infected 80 Marines during the 2003 riots in Liberia and killed two Special Forces Soldiers who were training peacekeepers in Nigeria," Schoomaker said.

In fact, DOD investigators have contributed to the development of approximately 25 percent of novel U.S. Food and Drug Administration (FDA)-licensed vaccines since 1962, when the FDA required documentation of vaccine effectiveness as well as safety. "Novel" refers to a vaccine for a new pathogen or combination of pathogens, or a dramatically innovative approach to vaccine manufacturing. Further, the U.S. military contributed to the development of approximately one-half of nonpediatric vaccines that are currently administered to service members at the time of induction or predeployment.

Schoomaker enumerated the medical research taking place at USAMRMC laboratories. The Armed Forces Research Institute of Medical Sciences (AFRIMS), in Bangkok, Thailand, a joint operation with the Royal Thai Army, is responsible for tremendous medical advances in protection of Joint forces. AFRIMS is conducting the largest trial of anti-human immunodeficiency virus vaccine in the world in collaboration with the Royal Thai Ministry of Public Health.

The U.S. Army Medical Research Unit-Europe in Heidelberg, Germany, has been tracking the mental health aspects of Joint forces deployment for several years and it is responsible for scholarly work in identifying post traumatic stress-like symptoms that may arise in Soldiers stretching as far as six months after they return from deployment.

In another example of Joint collaboration, the Army works with the Navy on global infectious disease surveillance at two OCONUS laboratories. "The avian flu material that the Centers for Disease Control and Prevention obtained for development of a first-generation vaccine was gathered by the Naval Medical Research Unit 3 laboratory in Cairo, Egypt," Schoomaker said. "We're a great surveillance tool for deployed forces."

"The laboratory you might be most familiar with is located at Fort Detrick — the U.S. Army Medical Research Institute of Infectious Diseases [USAMRIID]. This is the setting for *Outbreak*, the movie starring Dustin Hoffman and Morgan Freeman. I'm Morgan Freeman, by the way, and, no, I don't have a refrigerator stocked with plasma that protects you against the Ebola virus. But if you visit my office, you can get a diet soda."

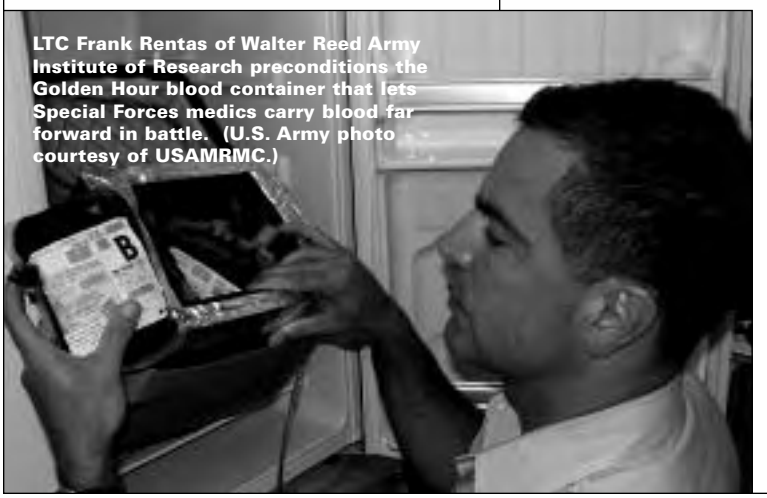
Successful New Medical Products

In his briefing to the PCOT Symposium, Schoomaker listed some of the medical products contracting officers at USAMRAA helped bring to warfighters:

- Chitosan Hemorrhage Control Dressing. This wound dressing staunches lethal hemorrhage, the number one cause of battlefield deaths. "From concept to delivery, the chitosan dressing went into the combat pockets of our medics and first-aid kits of our combat lifesavers in only 18 months," Schoomaker emphasized. "Bandages are getting into the hands of Soldiers because of the contracts that have been in place at USAMRAA for their production and delivery."
- Battlefield Medical Information System-Telemedicine (BMIS-T). This small, hand-held device is carried by more than 20,000 medics in Southwest Asia who can upload medical information about a casualty and send it over the Internet to the

AHLTA database repository of military medical information. The BMIS-T is also loaded with electronic versions of medics' manuals.

- Combat Application Tourniquet (CAT). This new tourniquet is in the Individual First-Aid Kits of every Soldier in the field of operations. It can stop the flow of arterial blood in an extremity and its windlass system can be operated with one hand. USAMRMC worked with Program Executive Office Soldier to field the CAT.
- Golden Hour Blood Container. This container was created by the Walter Reed Army Institute of Research in Silver Spring, MD, to transport red blood cell units without using batteries, ice or electricity. It was designed to transport the blood cell units within military facilities and to the Forward Surgical Teams where delayed evacuation of wounded Soldiers can occur.
- Burn Treatments. The U.S. Army Institute for Surgical Research's (USAISR's) Burn Center admits 300 patients annually and provides burn flight teams to ensure safe military aeromedical transfer from the initial hospitalization site to Fort Sam Houston. It also provides training programs for physicians, nurses and allied health professionals.
- Environmental Sensors. The U.S. Army Center for Environmental Health Research (USACEHR), Fort Detrick, develops environmental sensors and biomarkers that notify Soldiers when a living system is in a toxic environment. USACEHR has patented its research on sentinel fish that cough when they don't like the water. The fish are used to monitor water supplies at Fort Detrick; San Francisco, CA; Washington, DC; and New York City.



LTC Frank Rentas of Walter Reed Army Institute of Research preconditions the Golden Hour blood container that lets Special Forces medics carry blood far forward in battle. (U.S. Army photo courtesy of USAMRMC.)

USAMRMC partners with materiel developers at the U.S. Army Research, Development and Engineering Command (RDECOM). "We are not part of developing tools or materiel — we do the research to improve them," Schoomaker said. "We did research on the caffeine gum that is placed in rations for long-range patrols. This gum contains the caffeine equivalent of a double shot of espresso. We research chemical drugs that extend performance without altering a Soldier's judgment."

Disaster Relief Operations (DROs)

USAMRMC's experience with contingency contracting and its ability to meet urgent needs expeditiously has positioned it as a "go-to" player in responding to certain aspects of DROs. In July 2005, USAMMA entered into a memorandum of agreement with the Federal Emergency Management Agency (FEMA) to assist in building a mobile field hospital. Several components were procured and the last piece, the shelter system, is in the final stages of procurement. USAMMA also acts as a clearinghouse for all the medical assembly requirements that the deployed force and the DHS would require.

USAMRAA has helped both DHS and FEMA in the monumental contracting requirements to meet their infrastructure needs in the aftermath of the destruction wrought by Hurricane Katrina — whether these are commands, mobilization sites or contractors who can move mobile homes into areas where disaster has struck. "Michaels' crew picked up the contract for the FEMA trailers and emergency housing requirements post-Katrina," Schoomaker said.

Schoomaker explained his command's goal in collaborating with other federal agencies. "The idea is not to become the contracting agency or materiel supplier for a non-DOD community. Rather, in this era of rapid acquisition and of new missions, requirements and massive materiel needs, we will assist agencies like FEMA and DHS by not forcing them to reinvent the wheel for things that we already have in place. We allow them to leverage the interagency process across executive agencies."

Contracting Support to Military Medical Care

Schoomaker outlined a number of instances in which his contracting officers at USAMRAA have supported the Army Medical Department mission. For instance, the Walter Reed Army Medical Center (WRAMC) Amputee Center, Washington, DC, was established by a grant awarded by USAMRAA from special funds made available in FY04 through congressional appropriations led by Senator Bill Nelson.

"That's a combination of congressional interest in a project that grew out of the rapid emergence of these grievously injured Soldiers, Marines and other service members," Schoomaker said. "Because of our improved body armor, tourniquets and hemostatic dressings, we have saved warfighters from bleeding to death. However, as a

"Care in the air" for burn patients is one specialty of the USAISR, Fort Sam Houston, TX. The USAISR conducts medical research to provide medical solutions and products across the full spectrum of combat casualty care. (U.S. Army photo courtesy of USAMRMC.)

result of increased survival, we are having to treat and then rehabilitate many very grievously injured Soldiers."

Between two and three percent of returning casualties are amputees. There are more than 400 patients who have lost a limb and one in five have lost two or more limbs. Currently, amputee service men and women are treated at WRAMC and Brooke Army Medical Center, Fort Sam Houston. A new Comprehensive Combat Casualty Care Center at San Diego Naval Medical Center is in the works to assist West Coast-based service members.

The Military Amputee Research Program in Washington, DC, uses state-of-the-art technology for rehabilitating Soldiers. For example, the C-leg prosthetic is the first knee joint system controlled and adjusted by microprocessors. Schoomaker talked about the next generation of prosthetics that map small mechanical devices in the prosthesis to the nerve that once controlled the muscle that is now gone. "Eventually, we'll have the prosthetic device mapped to the brain itself," Schoomaker said. "So you think 'move my thumb' and the prosthetic hand moves."

A consortium of academic partners, industry and engineering firms, including USAMRMC, are working on advancing prosthetic devices. (See sidebar "DARPA Revolutionizes Prosthetics" on Page 15.) "This is a time when our returning force of Soldiers comes home either with evident wounds or with hidden wounds," Schoomaker said. "They need our care and they need it with speed but also with the highest quality possible. We've had success in putting Soldiers and Marines back in uniform and back in service."

Contracting Professionals Work With Development Teams

Nearly all of USAMRMC's products in some way physically touch a human being or are actually inside a human being, and, in the United States, this requires FDA approval. Advanced developers at USAMRMC work closely with RDECOM and other materiel developers to provide the regulatory oversight and research that are necessary to obtain FDA approval of products for Soldiers.

The command's product teams — typically composed of scientists and advanced developers — have also taken on contracting experts to ensure that products move smoothly from the tech base through regulatory requirements to procurement.

"One of the things we've done under MG Schoomaker's leadership is to place contracting professionals on all the product teams," explained Michaels. "So our contracting procurement professionals know what's happening and it's not a surprise when it comes to us as a new requirement. Contracting officers are included very early in the process and that allows us to decrease the timeline from concept to actual product."

Schoomaker praised the contracting procurement professionals at USAMRAA for the specialized, complex acquisition support they give to major medical product lines, infectious disease, combat care, military operational medicine, mental health challenges, and medical chemical and biological defense. "For all of this, I want to extend the congratulations and appreciation of my command and the medics who I represent," he said.

Collaboration and Partnerships Are Essential

USAMRMC continues its essential work in protecting Soldiers; researching vaccines, drugs and diagnostics; building medical facilities; and providing medical materiel and services across all services and other federal agencies.

"We're in an era in which nobody can do it alone," Schoomaker concluded. "USAMRMC is about teamwork. We're about partnering across the Joint force with industry and academia and working together through an interagency process. We see ourselves as a materiel developer and fielder, but also as a knowledge broker to find the best source of a solution and the best source of a contract that will provide the solution — either the expertise in the form of a service or the product itself. Neither I nor my command is proprietary or parochial about whose idea it is. We're more interested in making sure we get products and expertise to the field in as rapid and as timely a fashion as possible."

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